

1 **HIERARCHICAL MULTI-COMPONENT TRACE FACILITY**
2 **USING MULTIPLE BUFFERS PER COMPONENT**

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4 **ABSTRACT OF THE INVENTION**

5 Disclosed is a system and a method for implementing trace buffers in a computer
6 program. A trace facility monitors operation of the computer program in real time. As the
7 code is executed, error-related events occur and are divided into at least three components,
8 including errors, warnings, and messages. Records of these events are stored in the trace
9 buffers. Each task, process, or component of the embedded system that is traced may have
10 an independent set of trace buffers. Unique events eliminate the confusion as to where or
11 when an event occurs in a system. Separate trace buffers for each component of the
12 embedded system ensure that no component consumes buffer resources needed by other
13 components. The trace facility may be embedded in the code in a transparent manner and
14 may be utilized to locate errors on-site.

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